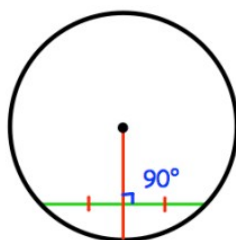


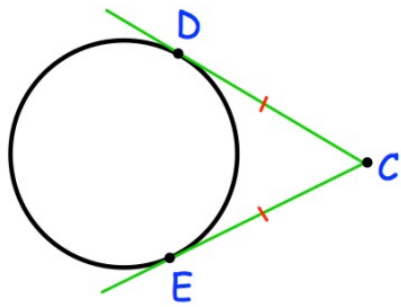
## (6) Tangents and radii

Do now:

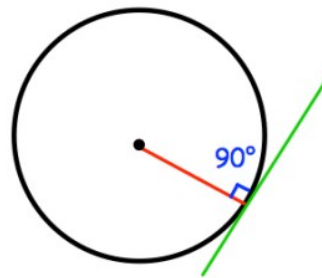


The radius through the midpoint  
of a chord will bisect the chord  
at  $90^\circ$

Perpendicular from the Centre to a Chord			
<b>(a)</b> $a = 49^\circ$	<b>(b)</b> $b = 19^\circ$	<b>(c)</b> $c = 55^\circ$	<b>(d)</b> $d = 45^\circ$
<b>(e)</b> $e = 27^\circ$	<b>(f)</b> $f = 49^\circ$ $g = 49^\circ$	<b>(g)</b> $h = 19^\circ$	<b>(h)</b> $j = 51^\circ$ $k = 39^\circ$
<b>(i)</b> $m = 62^\circ$	<b>(j)</b> $n = 105^\circ$	<b>(k)</b> Find $y$ in terms of $x$ $y = x + 90$	<b>(l)</b> Find $y$ in terms of $x$ $y = x + 270$



The tangents to a circle from the same point will be equal length



The angle between a radius and a tangent is  $90^\circ$

Circle Theorems and Tangents			
<b>(a)</b>  $a = 90^\circ$	<b>(b)</b>  $b = 54^\circ$	<b>(c)</b>  $c = 20^\circ$	<b>(d)</b>  $d = 30^\circ$
<b>(e)</b>  $e = 55^\circ$	<b>(f)</b>  $f = 122^\circ$	<b>(g)</b>  $g = 105^\circ$	<b>(h)</b>  $h = 27^\circ$ $j = 126^\circ$
<b>(i)</b>  $k = 14^\circ$ $m = 54^\circ$	<b>(j)</b>  $n = 90^\circ$ $p = 254^\circ$	<b>(k)</b>  Find y in terms of x $y = 180 + x$	<b>(l)</b>  Find y in terms of x $y = \frac{90 - x}{2}$

Extension - calculate angle x

